Commissioner for Patents

AMENDMENTS TO THE CLAIMS

1.-2. **(CANCELED)**

3. **(CURRENTLY AMENDED)** The toric-drive transmission according to claim ~~2~~ 7, wherein the controller system has a third sleeve enclosing the first and second one of the sleeves and operatively connected to the roller device, the third sleeve being actuatable for displacing the roller along the second one of the degrees of freedom subsequent to a displacement of the roller along the third one of the rotational degrees of freedom for a reversed power input.

4. **(CURRENTLY AMENDED)** The toric-drive transmission according to claim ~~2~~ 7, wherein the first one of the sleeves has one rotational degree of freedom about a rotational axis of the power input and one translation degree of freedom along the rotational axis of the power input, and the second one of the sleeves has one rotational degree of freedom common to the rotational degree of freedom of the first one of the sleeves.

5. **(ORIGINAL)** The toric-drive transmission according to claim 3, wherein the first one of the sleeves has one rotational degree of freedom about a rotational axis of the power input and one translational degree of freedom along the rotational axis of the power input, the second one of the sleeves has one rotational degree of freedom common to the rotational degree of freedom of the first one of the sleeves, and the third sleeve has one rotational degree of freedom common to the rotational degree of freedom of the first and the second ones of the sleeves.

6. **(WITHDRAWN)** A method for controlling a power input/output ratio of a toric-drive transmission of the type having a pair of disks forming a torus-shaped cavity with a roller in

the torus-shaped cavity, the roller having a first rotational degree of freedom associated with a transmission of motion between the disks, a second rotational degree of freedom associated with the power input/output ratio, and a third rotational degree of freedom associated with a path of the roller on the disks, the method comprising the steps of:

displacing the roller from a first orientation to a predetermined second orientation in the third rotational degree of freedom so as to change the path of the roller on the disks, in which the roller will tend to return to the first orientation; and

guiding the roller into a change of orientation in the second rotational degree of freedom when the roller returns to the first orientation;

whereby the power input/output ratio is changed as a function of the predetermined second orientation in the third rotational degree of freedom.

7. **(NEW)** A toric-drive transmission comprising:

a drive disk for receiving a power input;

a driven disk for transmitting a power output;

a roller device having a roller displaceably mounted between the drive disk and the driven disk, the roller having three rotational degrees of freedom, a first one of the rotational degrees of freedom for transmitting motion from the drive disk to the driven disk so as to convert the power input to the power output, a second one of the rotational degrees of freedom for varying a ratio of the power output to the power input as a function of an orientation of the roller along the second one of the rotational degrees of freedom, and a third one of the rotational degrees of freedom for initiating a rotation of the roller about the second one of the rotational degrees of freedom; and

a controller system having two sleeves enclosing the roller and operatively connected to the roller device

for changing the orientation of the roller in the second one of the rotational degrees of freedom by actuating a displacement of the roller in the third one of the rotational degrees of freedom, a first one of the sleeves being actuatable for displacing the roller along the third one of the rotational degrees of freedom from a first orientation to a second orientation, and a second one of the sleeves being actuatable for displacing the roller along the second one of the degrees of freedom as a function of the second orientation along the third one of the rotational degrees of freedom.